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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,936	01/11/2002	Michael Mulligan	NOKM.015CIP	9432
7590 12/27/2006 Hollingsworth & Funk, LLC Suite 125 8009 34th Avenue South Minneapolis, MN 55425			EXAMINER DOAN, DUYEN MY	
			ART UNIT 2152	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			12/27/2006	
			DELIVERY MODE PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/043,936	Applicant(s) MULLIGAN ET AL.	
	Examiner Duyen M. Doan	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

This office action is in response to the submission filed on 10/03/06. Claims 1-6,8-41 are amended for examination. Claim 7 is cancelled.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The claimed invention is directed to non-statutory subject matter. Claims 41 are not limited to tangible embodiments. In view of Applicant's disclosure, specification page 44, lines 5-23, the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., [optical magnetic disc, RAM, CD ROM, PROM...]) and intangible embodiments (e.g., transmission medium, carrier wave). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2152

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6,8, 11, 13-15, 18-33, 40-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Polychronidis et al (us 2003/0018704) (hereinafter Poly).

As regarding claim 1, Poly discloses one or more terminals operable in a network (see Poly page 1-2, par 0020-0026; pg.3, par 0032,0036,0037,0045, also see figure 2, one or more terminals 22-1 -22-n in the network ; a network infrastructure comprising one or more network systems (see Poly page 1-2, par 0020-0026; pg.3, par 0032,0036,0037,0045, also see figure 2) ; at least one network-enabled application operating within a service provision infrastructure for use by one or more of the terminal (see Poly page 1-2, par 0020-0026; pg.3, par 0032,0036,0037,0045, also see figure 2, applications 23-1 to 23-m); and at least one network service broker comprising a at least one terminal-coupled broker to communicate with one or more terminals (see Poly page 1-2, par 0020-0026; pg.3, par 0032, 0036, 0037, 0045, also see figure 2, agent 21 in gateway server 27 coupled to terminals 22-1 to 22-n) and loosely-coupled interface exposed to the service provision infrastructure for brokering added-value network services from one or more of the terminals and network systems to the service provision infrastructure (see Poly page 1-2, par 0020-0026; pg.3, par 0032, 0036, 0037, 0045, also see figure 2, agent 21 in gateway 27).

As regarding claim 2, Poly discloses a loosely-coupled standardized interface (see Poly page 1-2, par 0020-0026).

As regarding claim 3, Poly discloses the loosely-coupled standardized interface is defined in Extensible Markup Language (XML) (see Poly page 1-2, par 0020-0026).

As regarding claim 4, Poly discloses wherein the loosely-coupled interface comprises a Web Services interface (see Poly page 1-2, par 0020-0026).

As regarding claim 5, Poly discloses wherein the loosely-coupled interface comprises a single loosely-coupled Web Service interface exposed to the service provision infrastructure (see Poly page 1-2, par 0020-0026).

As regarding claim 6, Poly discloses wherein the network service broker comprises at least one network-coupled broker to communicate with one or more network elements in the network infrastructure (see Poly page 1-2, par 0020-0026; pg.3, par 0032, 0036, 0037, 0045, also see figure 2, agent 21 in gateway 27).

As regarding claim 8, Poly discloses the network service broker comprises at least one hybrid network service broker to communicate with one or more network elements in the network infrastructure and with one or more terminals (see Poly page 1-2, par 0020-0026; pg.3, par 0032, 0036, 0037, 0045, also see figure 2, gateway communicate with terminals 22-1 to 22-n and application 23-1 to 23-m).

As regarding claim 11, Poly discloses the network service broker is a location broker to access a terminal location service to allow a location of the terminal to be provided to the network-enabled application (see Poly page 1-2, par 0020-0026; pg.3, par 0032, 0036, 0037, 0045).

Art Unit: 2152

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As regarding claim ~~2~~, Poly discloses the network service broker is a presence broker to access a presence service to allow user presence information to be provided to the network-enabled application (see Poly page 1-2, par 0020-0026; pg.3, par 0032, 0036, 0037, 0045).

As regarding claim 14, Poly discloses the network service broker is a client provisioning broker to broker provisioning of mobile terminals (see Poly page 1-2, par 0020-0026; pg.3, par 0032, 0036, 0037, 0045).

As regarding claim 15, Poly discloses wherein the network service broker is a notification broker to facilitate pushing content to the terminals (see Poly page 1-2, par 0020-0026; pg.3, par 0032, 0036, 0037, 0045).

As regarding claims 18-29, the limitations are similar to limitations of rejected claims 1-6,8, 11, 13-15, therefore rejected for the same rationale.

As regarding claims 30-33, 41, the limitations are similar to limitations of rejected claims 1-6,8, 11, 13-15, therefore rejected for the same rationale.

As regarding claim 40, Poly discloses an interface to access the service functionality form a network infrastructure and a loosely-coupled interface exposed to the service provision infrastructure, wherein the loosely-coupled interface comprises as web service-based interface having Extensible Markup Language (XML) schemata build on top of a web services platform to expose the service functionality available via the network (see Poly page 1-2, par 0020-0026; pg.3, par 0032, 0036, 0037, 0045).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-10, 12, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polychronidis et al (us 2003/0018704) (hereinafter Poly) in view of Rosenberg et al (us 2003/0013434).

As regarding claim 9, Poly discloses the invention substantially as claim in claim 1, but does not explicitly disclose wherein the network service broker is an authentication broker.

Rosenberg teaches an authentication broker (see pg.2, par 0020-0024).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Rosenberg to the system of Poly to include an authentication broker, because by having an authentication broker would ensure data security and billing purposes for the system (see Rosenberg pg.2, par 0020-0024).

As regarding claim 10, Poly discloses the invention substantially as claim in claim 1, but does not explicitly disclose charging broker to access a charging/billing service in connection with use of the network-enabled application.

Art Unit: 2152

Rosenberg teaches a charging broker to access a charging/billing service in connection with use of the network-enabled application (see Rosenberg, pg. 2, par 0020-0024).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Rosenberg to the system of Poly to include the charging broker, because it would keep track of the user' usage and bill the user according (see Rosenberg pg.2, par 0020-0024).

As regarding claim 12, Poly discloses the invention substantially as claim in claim 1, but does not explicitly disclose content ordering broker to store subscription information to a profile register and to verify subscription intentions of an end-user of the terminal.

Rosenberg teaches content ordering broker to store subscription information to a profile register and to verify subscription intentions of an end-user of the terminal (see Rosenberg pg.2, par 0018-0024).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Rosenberg to the system of Poly to include the content ordering broker, because it would keep track of content of end user ordering and bill the user base on the ordered content (see Rosenberg pg.2, par 0018-0024).

As regarding claim 16-17, Poly discloses the invention substantially as claim in claim 1, but does not explicitly disclose the network service broker is a privacy broker to



Art Unit: 2152

access end-user privacy information and to control which information other brokers will provide to the service provision infrastructure.

Rosenberg teaches the network service broker is a privacy broker to access end-user privacy information and to control which information other brokers will provide to the service provision infrastructure (see Rosenberg pg.2, par 0020-0024; pg.4, par 0052 to 0057).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Rosenberg to the system of Poly to include the privacy broker because it would allow the allow the system to authenticate the user by accessing the end user privacy information such as username and password (see Rosenberg pg.2, par 0020-0024; pg.4, par 0052 to 0057).

Claims 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al (us pat 6,957,262) (hereinafter Kimura) in view of Das et al (us pat 6,742,036) (hereinafter Das).

As regarding claim 34, Kimura discloses ; receiving, at the service provision infrastructure, an address of the visited network service broker from a home network service broker associated with a home network (see Kimura col.3, lines 31-62; col.5, lines 64-67; col.6, lines 1-30; lines 56-67; col.10, lines 50-67; col.11, lines 1-29, lines 55-62, receive a care-of-address of the foreign agent of the foreign network i.e. visited network), wherein the home network service broker exposes a loosely-coupled interface

Art Unit: 2152

to the service provision infrastructure to facilitate communication there between (see Kimura col.5, lines 64-67; col.6, lines 1-30; lines 56-67; col.10, lines 50-67; col.11, lines 1-29, lines 55-62); accessing the visited network service broker by the service provision infrastructure using the address of the visited network service broker; and facilitating access by the service provision infrastructure to the service functionality available from the visited network via a loosely-coupled interface of the visited network service broker that is exposed to the service provision infrastructure (see Kimura col.5, lines 64-67; col.6, lines 1-30; lines 56-67; col.10, lines 50-67; col.11, lines 1-29, lines 55-62, forwarding info to the mobile node in the foreign network using the care-of-address of the foreign agent).

Kimura discloses the invention substantially as claimed, but does not explicitly disclose providing a use authorization voucher to a visited network service broker associated with the visited network.

Das teaches providing a use authorization voucher to a visited network service broker associated with the visited network (see col.3, lines 4-45; col.4, lines 4-24, lines 42-65).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Das to the method of Kimura to include provide the authorization voucher to a visited network, because it by using the authorize voucher, it would secure the network from outside intrusion and protecting the network from unauthorized access.

As regarding claim 35, Kimura-Das discloses providing the use voucher to the service provision infrastructure via the loosely-coupled interface of the home network service broker, and in turn providing the use voucher to the visited network service broker via the loosely-coupled interface of the visited network service broker (see Das, col.3, lines 4-45; col.4, lines 4-24, lines 42-65, also see Fig.1, server agent home network of ISP y exchange authentication info with ISP x). The same motivation was utilized in claim 34 applied equally well to claim 35.

As regarding claim 36, Kimura-Das discloses directly providing the use voucher from the home network service broker to the visited network service broker (see Das, col.3, lines 4-45; col.4, lines 4-24, lines 42-65, also see Fig.1, server agent home network of ISP y exchange authentication info with ISP x) The same motivation was utilized in claim 34 applied equally well to claim 36.

As regarding claim 37, Kimura-Das discloses providing the use of authorization voucher to the visited network if roaming agreement between the home and visited networks authorizes providing the use authorization voucher to the visited network (see Das, col.3, lines 4-45; col.4, lines 4-24, lines 42-65, also see Fig.1, server agent home network of ISP y exchange authentication info with ISP x) The same motivation was utilized in claim 34 applied equally well to claim 37.

As regarding claims 38-39, the limitations are similar to limitations of rejected claims 34-37 above, therefore rejected for the same rationale as claims 34-37.

***Response to Arguments***

As regard to applicant's argument that "claim 41 is directed to statutory subject matter" Examiner respectfully disagrees, on page 44 of the specification applicant has provided evidence that applicant intends the medium to include signals as such the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore claim 41 is not statutory. Energy is not a series of steps or acts and thus is not a process. Energy is not a physical article or object and such is not a machine or manufacture. Energy is not a combination of substances and therefore not a composition of matter.

As regard to applicant's argument that the prior art does not teach "accessing or communicating with a mobile device" this limitation is not cited in the claims.

As regard to applicant's argument that the prior art does not teach "receive address of visited network service broker from a home network service broker associated with a home network" Examiner respectfully disagrees, Kimura teaches home gateway receiving a location registration request from a mobile node, the registration request has the address of foreign router included there as a care of address of the relevant mobile node (see Kimura col.3, lines 31-56).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in

Art Unit: 2152

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, by adding authorization voucher of Das to Kimura it would secure the network from unauthorized access and protecting the network from outside intrusion.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

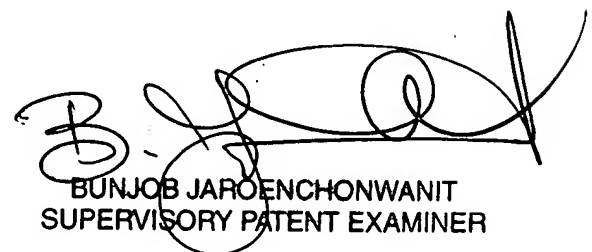
Art Unit: 2152

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duyen M. Doan whose telephone number is (571) 272-4226. The examiner can normally be reached on 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob A. Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner  
Duyen Doan  
Art unit 2152



BUNJOB JAROENCHONWANIT  
SUPERVISORY PATENT EXAMINER